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(71)Applicant : SASAKI YASUHIRO

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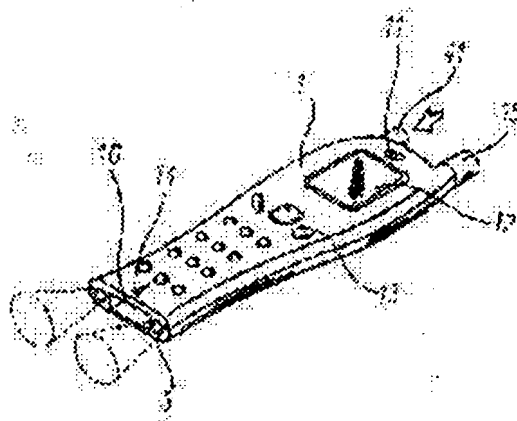
(72)Inventor : SASAKI YASUHIRO

(54) MOBILE PHONE

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a mobile phone with a new structure that provides high convenience by adding a function convenient when being carried daily to the mobile phone in addition to its speech function.

SOLUTION: The mobile phone of this invention is designed such that one lighting light emission diode 3 or more whose light emitting section 31 is externally exposed is placed at a proper place of the internal space of a main body 1 of a mobile thin box size, an input terminal of the lighting light emission diode 3 is connected to a DC power supply unit 2 in a lighted state by wiring, a switch circuit 4 for turning on/off the lighting light emission diode 3 is incorporated on the way of the wiring circuit, and an opening/closing operation button 41 of the switch circuit 4 is exposed at a proper place of the main body 1.



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CLAIMS

[Claim(s)]

[Claim 1] It is made to make it connect with the central device section which a radio unit, a memory unit, a DC-power-supply unit, etc. build in the central device section for radio, and they-corresponds to the interior electrically. Various control units including a display or a dial carbon button, an ear piece, As opposed to the body body of portable thin core box size with which it comes to allot the accompanying equipment section, such as a speaker, an antenna, and an input/output terminal entry, to a predetermined part in the shape of exposure While wiring the condition which can turn on the input terminal and DC-power-supply unit of this light emitting diode for lighting after arranging the piece or two or more light emitting diodes for lighting which turned the light-emitting part side outside and were made into the letter of exposure on the building envelope proper place Pocket mold telephone characterized by including the switching circuit lighting of said light emitting diode for lighting, and for putting-out-lights actuation in the halfway section of the wiring circuit concerned, and coming to match the switching operation carbon button of this switching circuit the proper place of the body body in the shape of exposure.

[Claim 2] It is made to make it connect with the central device section which a radio unit, a memory unit, a DC-power-supply unit, etc. build in the central device section for radio, and they-corresponds to the interior electrically. Various control units including a display or a dial carbon button, an ear piece, As opposed to the body body of portable thin core box size with which it comes to allot the accompanying equipment section, such as a speaker, an antenna, and an input/output terminal entry, to a predetermined part in the shape of exposure He is the building envelope proper place. Slots for memory, such as a disk or an IC card, Or after arranging the piece or two or more light emitting diodes for lighting which turned the light-emitting part side outside and were made into the letter of exposure in the location which adjoined near the spigot regio oralis of the various adapters for a communication link, While wiring the condition which can turn on the input terminal and DC-power-supply unit of this light emitting diode for lighting Pocket mold telephone characterized by including the switching circuit lighting of said light emitting diode for lighting, and for putting-out-lights actuation in the halfway section of the wiring circuit concerned, and coming to match the switching operation carbon button of this switching circuit the proper place of the body body in the shape of exposure.

[Claim 3] It is made to make it connect with the central device section which a radio unit, a memory unit, a DC-power-supply unit, etc. build in the central device section for radio, and they-corresponds to the interior electrically. Various control units including a display or a dial carbon button, an ear piece, As opposed to the body body of portable thin core box size with which it comes to allot the accompanying equipment section, such as a speaker, an antenna, and an input/output terminal entry, to a predetermined part in the shape of exposure Are the building envelope proper place, and in the internal proper place of this body body, while arranging a CCD camera so that the television section may be made into the letter of exposure The input terminal of this light emitting diode for lighting after arranging the piece or two or more light emitting diodes for lighting which turned the light-emitting part side to the photographic subject side of this CCD camera, and were made into the letter of exposure, The

2 or
more
LED

condition which can turn on a DC-power-supply unit is wired. In the halfway section of the wiring circuit concerned [whether the switching operation carbon button of this switching circuit is arranged in the shape of exposure in the proper place of the body body by incorporating the switching circuit lighting of said light emitting diode for lighting, and for putting-out-lights actuation, and] The photosensor interlocked with starting of this CCD camera is prepared. Or the input terminal of the light emitting diode for lighting, Pocket mold telephone characterized by constituting so that this photosensor may prepare the switching circuit section for lighting which perform luminescence actuation automatically only at the time of the need in the halfway section of a wiring circuit which wired the condition which can turn on a DC power supply unit and may become it according to the value which detected the photographic subject side illuminance .

[Claim 4] It is made to make it connect with the central device section which a radio unit, a memory unit, a DC-power-supply unit, etc. build in the central device section for radio, and they-corresponds to the interior electrically. Various control units including a display or a dial carbon button, an ear piece, As opposed to the body body of portable thin core box size with which it comes to allot the accompanying equipment section, such as a speaker, an antenna, and an input/output terminal entry, to a predetermined part in the shape of exposure Are the building envelope proper place, and in the internal proper place of this body body, while arranging a scanning CCD line sensor so that the read-head section may be made into the letter of exposure The input terminal of this light emitting diode for lighting after arranging the piece or two or more light emitting diodes for lighting which turned the light-emitting part side to the reading manuscript of this scanning CCD line sensor, and were made into the letter of exposure, Starting of this scanning CCD line sensor is interlocked with at the halfway section of a wiring circuit which wired the condition which can turn on a DC-power-supply unit. The switching circuit section for lighting which carries out lighting actuation automatically is prepared, and the need is accepted further. The input terminal of this light emitting diode for lighting, In the halfway section of a wiring circuit which wired the condition which can turn on a DC-power-supply unit Pocket mold telephone characterized by having incorporated the switching circuit lighting of said light emitting diode for lighting, and for putting-out-lights actuation, and constituting the switching operation carbon button of this switching circuit so that it may arrange in the proper place of the body body in the shape of exposure and may become it.

[Claim 5] There is no claim 1 which makes power consumption of the light emitting diode for lighting 20 mA-h order, and comes to restrict the installation number to two pieces or three pieces, and it is the pocket mold telephone of a publication 4 either.

[Claim 6] claims 3 or 4 which used light emitting diode for lighting as the white light emitting diode of comparatively high brightness which can emit light before and behind 3.6V -- the pocket mold telephone of any or a publication.

[Claim 7] There is no claim 1 laid under the condition of hiding an overall length into a body body skin after equipping the light-emitting part periphery of the light emitting diode for lighting with a telescopic metallic conduit or a telescopic plastic conduit slightly longer than this light-emitting part, and it is the pocket mold telephone of a publication 6 either.

[Claim 8] There is no claim 1 by which the light-emitting part of the light emitting diode for lighting was formed in the body body through the washer section for include-angle accommodation which has the ball bearing device of the shape of ***** which enables accommodation of the include angle of an optical axis free at predetermined within the limits, and it is the pocket mold telephone of a publication 6 either.

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Objects of the Invention] About the terminal equipment for a communication link of the pocket mold represented by a cellular phone, a land mobile radiotelephone, PHS (Personal Handyphon System), etc., if this invention can be carried especially every day in addition to a call function, it tends to offer the pocket mold telephone which consists of new structure where a convenient function can be added and high convenience can be acquired.

[0002]

[Description of the Prior Art] A base station is installed broadly and the pocket mold telephone in our country is followed on call area being expanded. Though it is a small light weight, besides fundamental activity of spreading quickly in recent years, and many figures using pocket mold telephone being able to see now in here and there [of a town], and carrying out long distance people and conversation by development of IC technique When the model in which all possible functions, such as an address book, a schedule book, a voice memorandum, a calculator, and a clock, were incorporated is also developed one after another and enables connection with the Internet further The variegated function which makes possible free high-speed mobile data communication, such as access to the information site on a network and transmission and reception of mobile banking and an electronic mail, was added, and it has developed into what can meet the demand of various users.

[0003] Thus, especially the pocket mold telephone with remarkable spread is set out in the fields on the occasion of generating of emergencies, such as a natural disaster, an accident, a traffic accident, and a sudden illness. It is what can demonstrate satisfactorily the mobility which exceeded as compared with other communication equipment, such as the telephone line for home use and a public telephone. By each Prefectural Police and fire-fighting headquarters which have the advantage that a detailed content can be notified, witnessing the actual condition directly from generating sites, such as an incident, and accident, disaster, the top in which No. 110 or an emergency call is possible, and paid their attention to such effectiveness Construction of the new urgency traffic command system which enables the report which used pocket mold telephone is advancing immediately. An electronic mail moreover, available pocket mold telephone Among people who could not but request communication from the third party, using the facsimile with which the home was equipped until now and who have a handicap in an acoustic sense It has spread quickly as a simple and useful communication tool. Also for such people Many subjects which say that the human life that it was not able to save it at all when it was to old for the report which used the electronic mail for emergency to be attained etc. was able to save with a quick report are also told.

[0004] Thus, if it is in call area, there are also many clienteles which opt for purchase since it says that it can use effective also in an emergency. The users who choose the model by which the reinforcement of the telephone situation and waterproofness were considered are also increasing in number. furthermore, from people who do work increasing in number not stopping at domestic utilization but moving internationally People who wish the service which can use the same pocket mold telephone as it is also

overseas are also increasing in number. The trouble caused by the terrorist group in a foreign country without ground intuition and people who are apprehensive about a catastrophic natural disaster etc. also increase in number, and development of the pocket mold telephone equipped with the function convenient for everyday life or emergency is desired increasingly.

[0005] Although the pocket mold telephone with a variegated function which can respond to a variety and various needs as mentioned above is developed like every day and the commercial scene is provided with this invention When everyday utilization and emergency have occurred, furthermore, besides the activity as communication equipment From decision whether the pocket mold telephone which gave the new function which enables new and effective utilization can be manufactured A prototype ** -- the development and research are started quickly and many [the trial-and-error over a long period of time and] As a result of having repeated the experiment, it succeeds in implementation-izing the pocket mold telephone which consists of new structure this time at last, and suppose that that configuration is explained in full detail with the example which represents with below this invention shown in a drawing.

[0006]

[Elements of the Invention] The pocket mold telephone included by this invention consists of the following configurations fundamentally so that I may be clearly understood also from the example representing this invention shown in a drawing. Namely, it is made to make it connect with the central device section which a radiocommunication unit, a memory unit, a DC-power-supply unit, etc. contain the central device section for radiocommunication, and they-corresponds to the interior electrically. Various control units including a display or a dial carbon button, an ear piece, As opposed to the body body of portable thin core box size with which it comes to allot the accompanying equipment section, such as a speaker, an antenna, and an input/output terminal entry, to a predetermined part in the shape of exposure While wiring the condition which can turn on the input terminal and DC-power-supply unit of this light emitting diode for lighting after arranging the piece or two or more light emitting diodes for lighting which turned the light-emitting part side outside and were made into the letter of exposure on the building envelope proper place It is the pocket mold telephone constituted so that the switching circuit burning of said light emitting diode for lighting and for putting-out-lights actuation might be incorporated, the switching operation carbon button of this switching circuit might be arranged on the proper place of the body body in the shape of exposure and it might become the halfway section of the wiring circuit concerned.

[0007] If the pocket mold telephone which consists of this fundamental configuration is shown as a thing of a more concrete configuration It is made to make it connect with the central device section which a radiocommunication unit, a memory unit, a DC-power-supply unit, etc. contain the central device section for radiocommunication, and they-corresponds to the interior electrically. Various control units including a display or a dial carbon button, an ear piece, As opposed to the body body of portable thin core box size with which it comes to allot the accompanying equipment section, such as a speaker, an antenna, and an input/output terminal entry, to a predetermined part in the shape of exposure He is the building envelope proper place. Slots for memory, such as a disk or an IC card, Or after arranging the piece or two or more light emitting diodes for lighting which turned the light-emitting part side outside and were made into the letter of exposure in the location which adjoined near the spigot regio oralis of the various adapters for a communication link, While wiring the condition which can turn on the input terminal and DC-power-supply unit of this light emitting diode for lighting The switching circuit burning of said light emitting diode for lighting and for putting-out-lights actuation can be included in the halfway section of the wiring circuit concerned, and it can be called the pocket mold telephone which considered the closing motion manual operation button of this switching circuit as the configuration which it comes to match the proper place of the body body in the shape of exposure.

[0008] Moreover, it is made to make it connect with the central device section which a radiocommunication unit, a memory unit, a DC-power-supply unit, etc. contain the central device section for radiocommunication, and they-corresponds to the interior electrically similarly. Various control units including a display or a dial carbon button, an ear piece, As opposed to the body body of

portable thin core box size with which it comes to allot the accompanying equipment section, such as a speaker, an antenna, and an input/output terminal entry, to a predetermined part in the shape of exposure. Are the building envelope proper place, and in the internal proper place of this body body, while arranging a CCD camera so that the television section may be made into the letter of exposure. The input terminal of this light emitting diode for lighting after arranging the piece or two or more light emitting diodes for lighting which turned the light-emitting part side to the photographic subject side of this CCD camera, and were made into the letter of exposure, The condition which can turn on a DC-power-supply unit is wired. In the halfway section of the wiring circuit concerned [whether the switching operation carbon button of this switching circuit is arranged in the shape of exposure in the proper place of the body body by incorporating the switching circuit burning of said light emitting diode for lighting, and for putting-out-lights actuation, and] The photosensor interlocked with starting of this CCD camera is prepared. Or the input terminal of the light emitting diode for lighting, The pocket mold telephone constituted so that this photosensor might prepare the switching circuit section for burning which performs luminescence actuation automatically only at the time of the need in the halfway section of a wiring circuit which wired the condition which can turn on a DC-power-supply unit and might become it according to the value which detected the photographic subject side illuminance is also included.

[0009] And it is made to make it connect with the central device section which a radiocommunication unit, a memory unit, a DC-power-supply unit, etc. contain the central device section for radiocommunication, and they-corresponds to the interior electrically further. Various control units including a display or a dial carbon button, an ear piece, As opposed to the body body of portable thin core box size with which it comes to allot the accompanying equipment section, such as a speaker, an antenna, and an input/output terminal entry, to a predetermined part in the shape of exposure. Are the building envelope proper place, and in the internal proper place of this body body, while arranging a scanning CCD line sensor so that the read-head section may be made into the letter of exposure. The input terminal of this light emitting diode for lighting after arranging the piece or two or more light emitting diodes for lighting which turned the light-emitting part side to the reading manuscript of this scanning CCD line sensor, and were made into the letter of exposure, Starting of this scanning CCD line sensor is interlocked with at the halfway section of a wiring circuit which wired the condition which can turn on a DC-power-supply unit. The switching circuit section for burning which carries out burning actuation automatically is prepared, and the need is accepted further. The input terminal of this light emitting diode for lighting, In the halfway section of a wiring circuit which wired the condition which can turn on a DC-power-supply unit. The switching circuit burning of said light emitting diode for lighting and for putting-out-lights actuation can be incorporated, and it can be said that it is the pocket mold telephone which makes a summary the configuration which comes to arrange the closing motion manual operation button of this switching circuit in the shape of exposure in the proper place of the body body.

[0010] The body body is what achieves the function which forms the body of pocket mold telephone. The radiocommunication unit and memory unit which must consider as the thing of the thin core box of portable size, and serve as the central device section for radiocommunication inside, A DC-power-supply unit etc. is built in. In the proper place of the outer wall section Various control units including a display or a dial carbon button, The accompanying equipment section, such as an ear piece, a speaker, an antenna, and an input/output terminal entry, should be allotted in the shape of exposure. If carrying and reinforcement are taken into consideration, it is desirable to form from raw materials, such as a synthetic-resin cast and a light metal cast, and it is possible to have shock-resistant structure and waterproof construction.

[0011] A DC-power-supply unit so that the function which supplies a direct current may be achieved to the light emitting diode for lighting and the normal system operation of the communication facility of pocket mold telephone, the various control units relevant to it, etc. can be carried out to it at least Shall have the function which supplies sufficient power and it does not prepare in the light emitting diode for lighting as a thing of dedication. The main power supply for operating a telephone function shall be used for the light emitting diode for lighting which emits light with little power. The thing of the charge type

built in the body body, the thing of the charge type which can carry out desorption from the body body, or the dc-battery of the disposable mold which can secede from the body body can be used.

[0012] The light emitting diode for lighting is what achieves the function which emits light in the illumination light from the proper place of the body body of pocket mold telephone. A piece or plurality should match the building envelope proper place of the body body so that a light-emitting part might be turned outside and it might become a letter of exposure. It is desirable for power consumption to set the thing before and behind 20 mA-h as a NI individual or three pieces. Besides [which can emit light before and behind 3.6V in case it is used as lighting for a CCD camera or scanners / which can use the white light emitting diode of high brightness comparatively], It should lay under the condition of equipping a light-emitting part periphery with a telescopic metallic conduit or a telescopic plastic conduit slightly longer than this light-emitting part as components for a buffer, and hiding an overall length into it in a body body external wall surface. Moreover, the light-emitting part should prepare in the body body through the washer section for include-angle accommodation which has the ball bearing device of the shape of ***** which enables accommodation of the include angle of an optical axis free at predetermined within the limits. furthermore, after a light-emitting part is laid under the condition of hiding an overall length into a body body external wall surface again, in the body body outer wall section of this light-emitting part outside piece delivery of transparence Itabe for coloring who colored it two or more colors which are beltlike and are different for every wrap area in this light-emitting part is carried out for every color -- as -- this light-emitting part top -- a slide -- it can consider as the structure which equips movable, for example, can emit light in the light of two or more colors, such as a red LGT and yellow light.

[0013] A switching circuit is what achieves the function electrically connected to the condition in which burning and putting-out-lights actuation of a DC-power-supply unit and the light emitting diode for lighting are free. The plus minus pole of this DC-power-supply unit, While connecting the input terminal of the light emitting diode for lighting possible [energization], in this circuit halfway section It shall have operational closing motion manipulator ability. the power of a DC-power-supply unit -- supply and a halt -- for example, in the case of the telephone which should prepare the switching operation carbon button used as the letter of exposure in this circuit halfway section, or prepared the proper place of the body body the CCD camera at it If it is the telephone which it is possible to put a photosensor side by side, and for this photosensor to detect the illuminance by the side of a photographic subject, and to prepare the automatic switching operation section which is the need, and which performs luminescence actuation automatically by the way based on the value, and has scanner ability When this scanner function operated, the automatic closing motion control unit which performs luminescence actuation automatically should be prepared.

[0014] A switching operation carbon button is what achieves the function which carries out the direct control of supply of the power to the light emitting diode for lighting, and the halt. It should be included in the switching circuit and should expose to the outside front face of the body body. The structure which can repeat ON-OFF actuation by repeating press actuation of a carbon button, Or it is also possible to carry out slide actuation, to switch on the light and to adopt which structures, such as an operational thing, for putting out lights. Although it is desirable to have equipped the clearance with protection against dust or waterproof construction few and it is most desirable to arrange on the body body side face which is easy to use as a flashlight When using as lighting for a CCD camera or scanners, it is good to prepare these image pick-ups and a reading activity in the location made easy. Suppose that that structure is explained in full detail with the example which represents with below this invention shown in a drawing.

[0015]

[Example 1] The case shown in the perspective view of the pocket mold telephone of drawing 1 and the circuit diagram of the light emitting diode for lighting of drawing 2 has a lighting function by light emitting diode, and shows one typical example in the pocket mold telephone included by this invention that consists of a fundamental configuration which shall have the function of a flashlight besides the function as a pocket mold telephone.

[0016] It has the body body 1 made of synthetic resin formed in size. the palm to which the pocket mold telephone concerned fits carrying of a thin core box -- The radiocommunication unit, memory unit which are not illustrated inside this body body 1, And the central device section for radiocommunication of DC-power-supply unit 2 grade is built in. Various control units, such as two or more dial carbon buttons 13 and 13 and ..., are arranged [in the center of an upper bed side by the side of a front face] by the lower part of a speaker 14 and this ear piece 11 in the shape of exposure under a display 12 and this display 12, respectively in the center of a soffit side by the side of an ear piece 11 and this front face. Near an upper bed corner The antenna 15 which can be extended freely is formed possible [hold], and the input/output terminal entry 16 had carried out opening to the soffit base section.

[0017] In each of the part which adjoins right and left of the input/output terminal entry 16 of this body body 1 soffit base section Each input terminal which the light emitting diodes 3 and 3 for lighting of a left Uichi pair are laid underground so that the light-emitting parts 31 and 31 may be made into the letter of exposure, and is located in the body body 1 interior It connects with the switching circuit 4 which passes along said DC-power-supply unit 2 and the switching operation carbon button 41 which protruded on the body body 1 up end face, and has structure which can emit light. Moreover, as shown in the perspective view of the pocket mold telephone of drawing 3 , it is possible to set arrangement of the light emitting diodes 3, 3, and 3 for lighting or the closing motion manual operation button 41 as the location which is easy to operate it as a flashlight.

[0018]

[Example 2] The case shown in the perspective view of the pocket mold telephone of drawing 4 shows other examples included by the pocket mold telephone of this invention, forms a CCD camera in one, and it is constituted so that it may have the function which enables photography of a still picture or an animation. The pocket mold telephone concerned in the center of before [the body body 1] side-face abbreviation the CCD (Charge Coupled Device) camera 5 In the location which is prepared so that the image pick-up section may be made into the letter of exposure, and adjoins this CCD camera 5 left right-hand side The white light emitting diodes 3 and 3 of comparatively high brightness set as the power consumption it is whose current before and after 20 mA-h, and whose electrical potential difference is 3.6V order extent, respectively are formed. In the bottom corner of a display 12 If the photosensor which is not illustrated is built in and this CCD camera 5 is started This photosensor detects the illuminance near the object side of photography, and the lighting by the white light emitting diodes 3 and 3 judges whether it is the need based on the value. In being required The switching circuit section for burning which was constituted so that a current might be automatically supplied to the white light emitting diodes 3 and 3 from a DC-power-supply unit and which is not illustrated is prepared. *photosensor*

[0019] As shown in the perspective view of the attachment structure of the light emitting diode for lighting of drawing 5 , each of these white light emitting diodes 3 and 3 In the washer section 81 for wearing formed in the shape of a cylinder, globular form **** 82 which is a globular form-like and fixed in the condition that a light-emitting part 31 penetrates a core The predetermined part of the body body 1 should be equipped in the shape of laying under the ground through the washer section 8 for include-angle accommodation which equips and becomes so that the ball bearing device whose splash is enabled may be formed in the shape of *****.

[0020]

[Example 3] The case shown in the perspective view of the pocket mold telephone of drawing 6 is pocket mold telephone which has the scanner ability which is included by the pocket mold telephone of this invention, and which shows the example of further others, reads a manuscript and can do it. The pocket mold telephone concerned is crossed to the predetermined right-and-left width of face on the backside [the body body 1 soffit base section]. The scanning CCD line sensor 6 makes the image pick-up side the letter of exposure, and is formed. On the right-hand side of [left] this scanning CCD line sensor 6 The driving wheels 7 and 7 of the couple which rolls towards the front or the back of the body body 1 are arranged in the shape of the same axle. furthermore, in the location close to the scanning CCD line sensor 6 over the right and left by the side of before the body body 1 soffit base section Three white light emitting diodes 3, 3, and 3 are what was laid underground so that the light-emitting part

might be made into the letter of exposure. The DC-power-supply unit is connected to said scanning CCD line sensor 6, the white light emitting diodes 3, 3, and 3, and a list at the body body 1 up end face at each of the motor for actuation which driving wheels 7 and 7 do not illustrate through the switching circuit which makes the switching operation carbon button 41 the letter of exposure and which is not illustrated. Once it pushes this switching operation carbon button 41, the current from a DC-power-supply unit will be supplied only to the white light emitting diodes 3, 3, and 3. And by the second press actuation A current is supplied so that each of the motor for actuation of driving wheels 7 and 7 may drive in the scanning CCD line sensor 6, the white light emitting diodes 3, 3, and 3, and a list. By third press actuation It is what was constituted so that supply of the current to the motor for actuation of driving wheels 7 and 7 might be suspended in the scanning CCD line sensor 6, the white light emitting diodes 3, 3, and 3, and a list.

[0021]

[Function] The pocket mold telephone of this invention which consists of a configuration as above While being able to talk over the telephone and use as pocket mold telephone, as shown in drawing 1 and drawing 2 If press actuation of the switching operation carbon button 41 is carried out, the light emitting diodes 3 and 3 for lighting arranged on the body body 1 soffit base section will emit light. When the utilization as a flashlight is attained, if the switching operation carbon button 41 is operated and the light emitting diodes 3 and 3 for lighting are made to emit light in a dark place also in case it is going to fit over the input/output terminal entry 16 the terminal for I/O which is not illustrated, the input/output terminal entry 16 neighborhood will be illuminated. Moreover, like the pocket mold telephone of drawing 3, the upper bed side of the body body 1 is made to arrange two or more light emitting diodes 3, 3, and 3 for lighting, and it becomes possible to perform actuation of burning and putting out lights by the structure which arranged the closing motion manual operation button 41 on the side-attachment-wall side of this body body 1, then the same operability as a common flashlight.

→ [0022] The pocket mold telephone which has CCD camera 5 shown in drawing 4 If photography actuation of CCD camera 5 is carried out, the photosensor which was prepared in the bottom corner of a display 12 and which is not illustrated will detect the illuminance near the photographic subject. For good photography of CCD camera 5 When the detection value judged that lighting is required is acquired, power is supplied to the white light emitting diodes 3 and 3 arranged near the left right-hand side of CCD camera 5, and the illumination light will be turned to a photographic subject and will be irradiated automatically. Moreover, if the illuminance which this photosensor detected is sufficient value for photography, power to the white light emitting diodes 3 and 3 will not be supplied, but a photograph will be taken by starting only CCD camera 5 in the condition [that the light is put out].

[0023] Moreover, if the body body 1 is equipped with the white light emitting diodes 3 and 3 through the washer section 8 for include-angle accommodation as shown in drawing 5 It is possible to operate globular form **** 82 manually directly, and to carry out include-angle accommodation to the washer section 81 for wearing which fixed in one on this body body 1. The optical axis shown with an alternate long and short dash line all over drawing of white light emitting diode 3 light-emitting part 31 formed so that the core of globular form **** 82 concerned might be penetrated is operated in the shape of a splash like an arrow head, and it becomes possible to adjust the direction of radiation of light free.

[0024] Once the pocket mold telephone shown in drawing 6 carries out press actuation of the closing motion manual operation button 41, a current is supplied only to the light emitting diodes 3, 3, and 3 for white, and it emits light by predetermined brightness, and will be in a condition usable as a flashlight. By the second press actuation To each of the light emitting diodes 3, 3, and 3 for white, the scanning CCD line sensor 6, and the motor for actuation of driving wheels 7 and 7 While the current from a DC-power-supply unit is supplied, the light emitting diodes 3, 3, and 3 for white emit light and the scanning CCD line sensor 6 starts reading actuation, revolution actuation is carried out at the rate which driving wheels 7 and 7 read and synchronizes with a rate. if this scanning CCD line sensor 6 is arranged on the target manuscript and driving wheels 7 and 7 are made to contact a manuscript side using the self-weight of the body body 1 -- the body body 1 -- altogether -- reading actuation will be performed, running a manuscript top by himself at the optimal rate for reading. If third switching operation carbon button 41

actuation is performed after completing reading, the current supply source to the light emitting diodes 3, 3, and 3 for white, the scanning CCD line sensor 6, and the motor for actuation of driving wheels 7 and 7 will be suspended.

[0025]

[Effect] According to the pocket mold telephone of this invention the above passage, can carry and use it daily as a terminal equipment for a communication link of a pocket mold, and an activity and action in a house or the dark place of a going-out place are faced. Since using as a flashlight is possible and it is always carrying If the waist is bent and illuminated also when it has the description that it can be used also at the time of unexpected accident and disaster, taking out quickly and has been bewildered at the time of the outbreak of a fire If many people are going to blame when the check of the way is attained available also as a guide light -- etc. -- by being able to enable various utilization and having used the light emitting diode for lighting as the light source Brightness sufficient as a flashlight is secured and the distinguished effectiveness that power consumption can be low pressed down to extent which does not spoil communication facility is demonstrated.

[0026] Especially the pocket mold telephone of drawing 1 and drawing 2 which were explained to the example In addition to the above-mentioned description, by having arranged the light emitting diodes 3 and 3 for lighting near [input/output terminal entry 16] the body body 1 Plugs, such as a disk in a dark place, an IC card, or various adapters for a communication link, can be performed simply and certainly. Like the pocket mold telephone of drawing 3 An operation mistake is cancelable while being able to operate it simply and certainly by making the light emitting diodes 3, 3, and 3 for lighting, and the closing motion manual operation button 41 into the arrangement according to a flashlight, and actuation structure.

→ [0027] The pocket mold telephone which carried out [**] to drawing 4 by having formed the white light emitting diodes 3 and 3 in the location which can illuminate the photographic subject of CCD camera 5 Irradiate sunlight and the light of the abbreviation same color at a photographic subject, adjust an illuminance suitably, and good photography is attained. Usually, the filter and the image-processing function to perform accommodation of a light and darkness and a color tone indispensable to a CCD camera 5 side are made unnecessary. By setting up the power consumption per this white light emitting diode 3 piece before and after 3.6V and 20 mA-h, when a manufacturing cost is reducible 3.6V currently used for the DC-power-supply unit of common pocket mold telephone, Can use the power of the lithium ion battery of 500 mA-h extent as it is, without making a special transformation circuit intervene, and since there is little power consumption required for lighting Even if it is the case where did not cause trouble to communication facility and continuous duty only of the lighting function is carried out, it is possible to make the light switch on continuously for about 25 hours. Furthermore, it becomes possible to change freely the structure which attached the white light emitting diode 3 through the washer section 8 for include-angle accommodation as shown in drawing 5, then the include angle of lighting according to liking or a situation, and the excellent description that photography from which expression and an expression differ can be performed is acquired.

[0028] Furthermore, by having equipped the pocket mold telephone shown in drawing 6 with the scanner function which consists of a scanning CCD line sensor 6 again, and having considered as the structure of using the white light emitting diodes 3, 3, and 3, as lighting in the case of the manuscript reading as what carried the scanner of a pocket mold in one in the top in which the utilization as a flashlight is possible, it can be markedly alike, convenience can be raised, and it can provide for a commercial scene as a high product of added value.

[0029] Since **** achievement of the desired end of the pocket mold telephone of this invention is enabled by that new configuration like description and it considered as the structure of moreover using the power of the existing DC-power-supply unit for lighting as it is When manufacture can also be made far economical as compared with the structure of it being easy and carrying the dc-battery only for lighting, Manday and a manufacturing cost can be held down low, and can be offered comparatively cheaply, it is esteemed in the pocket mold telephone manufacturer asked for a small light weight and multifunctional coexistence, and the communication link industry relevant to this, and it is expected that

it becomes what crosses extensively, and uses and spreads.

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PRIOR ART

[Description of the Prior Art] A base station is installed broadly and the pocket mold telephone in our country is followed on call area being expanded. Though it is a small light weight, besides fundamental activity of spreading quickly in recent years, and many figures using pocket mold telephone being able to see now in here and there [of a town], and carrying out long distance people and conversation by development of IC technique When the model in which all possible functions, such as an address book, a schedule book, a voice memorandum, a calculator, and a clock, were incorporated is also developed one after another and enables connection with the Internet further The variegated function which makes possible free high-speed mobile data communication, such as access to the information site on a network and transmission and reception of mobile banking and an electronic mail, was added, and it has developed into what can meet the demand of various users.

[0003] Thus, especially the pocket mold telephone with remarkable spread is set out in the fields on the occasion of generating of emergencies, such as a natural disaster, an accident, a traffic accident, and a sudden illness. It is what can demonstrate satisfactorily the mobility which exceeded as compared with other communication equipment, such as the telephone line for home use and a public telephone. By each Prefectural Police and fire-fighting headquarters which have the advantage that a detailed content can be notified, witnessing the actual condition directly from generating sites, such as an incident, and accident, disaster, the top in which No. 110 or an emergency call is possible, and paid their attention to such effectiveness Construction of the new urgency traffic command system which enables the report which used pocket mold telephone is advancing immediately. An electronic mail moreover, available pocket mold telephone Among people who could not but request communication from the third party, using the facsimile with which the home was equipped until now and who have a handicap in an acoustic sense It has spread quickly as a simple and useful communication tool. Also for such people Many subjects which say that the human life that it was not able to save it at all when it was to old for the report which used the electronic mail for emergency to be attained etc. was able to save with a quick report are also told.

[0004] Thus, if it is in call area, there are also many clienteles which opt for purchase since it says that it can use effective also in an emergency. The users who choose the model by which the reinforcement of the telephone situation and waterproofness were considered are also increasing in number. furthermore, from people who do work increasing in number not stopping at domestic utilization but moving internationally People who wish the service which can use the same pocket mold telephone as it is also overseas are also increasing in number. The trouble caused by the terrorist group in a foreign country without ground intuition and people who are apprehensive about a catastrophic natural disaster etc. also increase in number, and development of the pocket mold telephone equipped with the function convenient for everyday life or emergency is desired increasingly.

[0005] Although the pocket mold telephone with a variegated function which can respond to a variety and various needs as mentioned above is developed like every day and the commercial scene is provided with this invention When everyday utilization and emergency have occurred, furthermore, besides the activity as communication equipment From decision whether the pocket mold telephone which gave the

new function which enables new and effective utilization can be manufactured A prototype ** -- the development and research are started quickly and many [the trial-and-error over a long period of time and] As a result of having repeated the experiment, it succeeds in implementation-izing the pocket mold telephone which consists of new structure this time at last, and suppose that that configuration is explained in full detail with the example which represents with below this invention shown in a drawing.

[0006]

[Elements of the Invention] The pocket mold telephone included by this invention consists of the following configurations fundamentally so that I may be clearly understood also from the example representing this invention shown in a drawing. Namely, it is made to make it connect with the central device section which a radiocommunication unit, a memory unit, a DC-power-supply unit, etc. contain the central device section for radiocommunication, and they-corresponds to the interior electrically. Various control units including a display or a dial carbon button, an ear piece, As opposed to the body body of portable thin core box size with which it comes to allot the accompanying equipment section, such as a speaker, an antenna, and an input/output terminal entry, to a predetermined part in the shape of exposure While wiring the condition which can turn on the input terminal and DC-power-supply unit of this light emitting diode for lighting after arranging the piece or two or more light emitting diodes for lighting which turned the light-emitting part side outside and were made into the letter of exposure on the building envelope proper place It is the pocket mold telephone constituted so that the switching circuit burning of said light emitting diode for lighting and for putting-out-lights actuation might be incorporated, the switching operation carbon button of this switching circuit might be arranged on the proper place of the body body in the shape of exposure and it might become the halfway section of the wiring circuit concerned.

[0007] If the pocket mold telephone which consists of this fundamental configuration is shown as a thing of a more concrete configuration It is made to make it connect with the central device section which a radiocommunication unit, a memory unit, a DC-power-supply unit, etc. contain the central device section for radiocommunication, and they-corresponds to the interior electrically. Various control units including a display or a dial carbon button, an ear piece, As opposed to the body body of portable thin core box size with which it comes to allot the accompanying equipment section, such as a speaker, an antenna, and an input/output terminal entry, to a predetermined part in the shape of exposure He is the building envelope proper place. Slots for memory, such as a disk or an IC card, Or after arranging the piece or two or more light emitting diodes for lighting which turned the light-emitting part side outside and were made into the letter of exposure in the location which adjoined near the spigot regio oralis of the various adapters for a communication link, While wiring the condition which can turn on the input terminal and DC-power-supply unit of this light emitting diode for lighting The switching circuit burning of said light emitting diode for lighting and for putting-out-lights actuation can be included in the halfway section of the wiring circuit concerned, and it can be called the pocket mold telephone which considered the closing motion manual operation button of this switching circuit as the configuration which it comes to match the proper place of the body body in the shape of exposure.

[0008] Moreover, it is made to make it connect with the central device section which a radiocommunication unit, a memory unit, a DC-power-supply unit, etc. contain the central device section for radiocommunication, and they-corresponds to the interior electrically similarly. Various control units including a display or a dial carbon button, an ear piece, As opposed to the body body of portable thin core box size with which it comes to allot the accompanying equipment section, such as a speaker, an antenna, and an input/output terminal entry, to a predetermined part in the shape of exposure Are the building envelope proper place, and in the internal proper place of this body body, while arranging a CCD camera so that the television section may be made into the letter of exposure The input terminal of this light emitting diode for lighting after arranging the piece or two or more light emitting diodes for lighting which turned the light-emitting part side to the photographic subject side of this CCD camera, and were made into the letter of exposure, The condition which can turn on a DC-power-supply unit is wired. In the halfway section of the wiring circuit concerned [whether the switching operation

carbon button of this switching circuit is arranged in the shape of exposure in the proper place of the body body by incorporating the switching circuit burning of said light emitting diode for lighting, and for putting-out-lights actuation, and] The photosensor interlocked with starting of this CCD camera is prepared. Or the input terminal of the light emitting diode for lighting, The pocket mold telephone constituted so that this photosensor might prepare the switching circuit section for burning which performs luminescence actuation automatically only at the time of the need in the halfway section of a wiring circuit which wired the condition which can turn on a DC-power-supply unit and might become it according to the value which detected the photographic subject side illuminance is also included. [0009] And it is made to make it connect with the central device section which a radiocommunication unit, a memory unit, a DC-power-supply unit, etc. contain the central device section for radiocommunication, and they-corresponds to the interior electrically further. Various control units including a display or a dial carbon button, an ear piece, As opposed to the body body of portable thin core box size with which it comes to allot the accompanying equipment section, such as a speaker, an antenna, and an input/output terminal entry, to a predetermined part in the shape of exposure Are the building envelope proper place, and in the internal proper place of this body body, while arranging a scanning CCD line sensor so that the read-head section may be made into the letter of exposure The input terminal of this light emitting diode for lighting after arranging the piece or two or more light emitting diodes for lighting which turned the light-emitting part side to the reading manuscript of this scanning CCD line sensor, and were made into the letter of exposure, Starting of this scanning CCD line sensor is interlocked with at the halfway section of a wiring circuit which wired the condition which can turn on a DC-power-supply unit. The switching circuit section for burning which carries out burning actuation automatically is prepared, and the need is accepted further. The input terminal of this light emitting diode for lighting, In the halfway section of a wiring circuit which wired the condition which can turn on a DC-power-supply unit The switching circuit burning of said light emitting diode for lighting and for putting-out-lights actuation can be incorporated, and it can be said that it is the pocket mold telephone which makes a summary the configuration which comes to arrange the closing motion manual operation button of this switching circuit in the shape of exposure in the proper place of the body body.

[0010] The body body is what achieves the function which forms the body of pocket mold telephone. The radiocommunication unit and memory unit which must consider as the thing of the thin core box of portable size, and serve as the central device section for radiocommunication inside, A DC-power-supply unit etc. is built in. In the proper place of the outer wall section Various control units including a display or a dial carbon button, The accompanying equipment section, such as an ear piece, a speaker, an antenna, and an input/output terminal entry, should be allotted in the shape of exposure. If carrying and reinforcement are taken into consideration, it is desirable to form from raw materials, such as a synthetic-resin cast and a light metal cast, and it is possible to have shock-resistant structure and waterproof construction.

[0011] A DC-power-supply unit so that the function which supplies a direct current may be achieved to the light emitting diode for lighting and the normal system operation of the communication facility of pocket mold telephone, the various control units relevant to it, etc. can be carried out to it at least Shall have the function which supplies sufficient power and it does not prepare in the light emitting diode for lighting as a thing of dedication. The main power supply for operating a telephone function shall be used for the light emitting diode for lighting which emits light with little power. The thing of the charge type built in the body body, the thing of the charge type which can carry out desorption from the body body, or the dc-battery of the disposable mold which can secede from the body body can be used.

[0012] The light emitting diode for lighting is what achieves the function which emits light in the illumination light from the proper place of the body body of pocket mold telephone. A piece or plurality should match the building envelope proper place of the body body so that a light-emitting part might be turned outside and it might become a letter of exposure. It is desirable for power consumption to set the thing before and behind 20 mA-h as a NI individual or three pieces. Besides [which can emit light before and behind 3.6V in case it is used as lighting for a CCD camera or scanners / which can use the

white light emitting diode of high brightness comparatively], It should lay under the condition of equipping a light-emitting part periphery with a telescopic metallic conduit or a telescopic plastic conduit slightly longer than this light-emitting part as components for a buffer, and hiding an overall length into it in a body body external wall surface. Moreover, the light-emitting part should prepare in the body body through the washer section for include-angle accommodation which has the ball bearing device of the shape of ***** which enables accommodation of the include angle of an optical axis free at predetermined within the limits. furthermore, after a light-emitting part is laid under the condition of hiding an overall length into a body body external wall surface again, in the body body outer wall section of this light-emitting part outside piece delivery of transparence Itabe for coloring who colored it two or more colors which are beltlike and are different for every wrap area in this light-emitting part is carried out for every color -- as -- this light-emitting part top -- a slide -- it can consider as the structure which equips movable, for example, can emit light in the light of two or more colors, such as a red LGT and yellow light.

[0013] A switching circuit is what achieves the function electrically connected to the condition in which burning and putting-out-lights actuation of a DC-power-supply unit and the light emitting diode for lighting are free. The plus minus pole of this DC-power-supply unit, While connecting the input terminal of the light emitting diode for lighting possible [energization], in this circuit halfway section It shall have operational closing motion manipulator ability. the power of a DC-power-supply unit -- supply and a halt -- for example, in the case of the telephone which should prepare the switching operation carbon button used as the letter of exposure in this circuit halfway section, or prepared the proper place of the body body the CCD camera at it If it is the telephone which it is possible to put a photosensor side by side, and for this photosensor to detect the illuminance by the side of a photographic subject, and to prepare the automatic switching operation section which is the need, and which performs luminescence actuation automatically by the way based on the value, and has scanner ability When this scanner function operated, the automatic closing motion control unit which performs luminescence actuation automatically should be prepared.

[0014] A switching operation carbon button is what achieves the function which carries out the direct control of supply of the power to the light emitting diode for lighting, and the halt. It should be included in the switching circuit and should expose to the outside front face of the body body. The structure which can repeat ON-OFF actuation by repeating press actuation of a carbon button, Or it is also possible to carry out slide actuation, to switch on the light and to adopt which structures, such as an operational thing, for putting out lights. Although it is desirable to have equipped the clearance with protection against dust or waterproof construction few and it is most desirable to arrange on the body body side face which is easy to use as a flashlight When using as lighting for a CCD camera or scanners, it is good to prepare these image pick-ups and a reading activity in the location made easy. Suppose that that structure is explained in full detail with the example which represents with below this invention shown in a drawing.

[0015]

[Example 1] The case shown in the perspective view of the pocket mold telephone of drawing 1 and the circuit diagram of the light emitting diode for lighting of drawing 2 has a lighting function by light emitting diode, and shows one typical example in the pocket mold telephone included by this invention that consists of a fundamental configuration which shall have the function of a flashlight besides the function as a pocket mold telephone.

[0016] It has the body body 1 made of synthetic resin formed in size. the palm to which the pocket mold telephone concerned fits carrying of a thin core box -- The radiocommunication unit, memory unit which are not illustrated inside this body body 1, And the central device section for radiocommunication of DC-power-supply unit 2 grade is built in. Various control units, such as two or more dial carbon buttons 13 and 13 and ..., are arranged [in the center of an upper bed side by the side of a front face] by the lower part of a speaker 14 and this ear piece 11 in the shape of exposure under a display 12 and this display 12, respectively in the center of a soffit side by the side of an ear piece 11 and this front face. Near an upper bed corner The antenna 15 which can be extended freely is formed possible [hold], and

the input/output terminal entry 16 had carried out opening to the soffit base section.

[0017] In each of the part which adjoins right and left of the input/output terminal entry 16 of this body body 1 soffit base section Each input terminal which the light emitting diodes 3 and 3 for lighting of a left Uichi pair are laid underground so that the light-emitting parts 31 and 31 may be made into the letter of exposure, and is located in the body body 1 interior It connects with the switching circuit 4 which passes along said DC-power-supply unit 2 and the switching operation carbon button 41 which protruded on the body body 1 up end face, and has structure which can emit light. Moreover, as shown in the perspective view of the pocket mold telephone of drawing 3, it is possible to set arrangement of the light emitting diodes 3, 3, and 3 for lighting or the closing motion manual operation button 41 as the location which is easy to operate it as a flashlight.

[0018]

[Example 2] The case shown in the perspective view of the pocket mold telephone of drawing 4 shows other examples included by the pocket mold telephone of this invention, forms a CCD camera in one, and it is constituted so that it may have the function which enables photography of a still picture or an animation. The pocket mold telephone concerned in the center of before [the body body 1] side-face abbreviation the CCD (Charge Coupled Device) camera 5 In the location which is prepared so that the image pick-up section may be made into the letter of exposure, and adjoins this CCD camera 5 left right-hand side The white light emitting diodes 3 and 3 of comparatively high brightness set as the power consumption it is whose current before and after 20 mA-h, and whose electrical potential difference is 3.6V order extent, respectively are formed. In the bottom corner of a display 12 If the photosensor which is not illustrated is built in and this CCD camera 5 is started This photosensor detects the illuminance near the object side of photography, and the lighting by the white light emitting diodes 3 and 3 judges whether it is the need based on the value. In being required The switching circuit section for burning which was constituted so that a current might be automatically supplied to the white light emitting diodes 3 and 3 from a DC-power-supply unit and which is not illustrated is prepared.

[0019] As shown in the perspective view of the attachment structure of the light emitting diode for lighting of drawing 5, each of these white light emitting diodes 3 and 3 In the washer section 81 for wearing formed in the shape of a cylinder, globular form **** 82 which is a globular form-like and fixed in the condition that a light-emitting part 31 penetrates a core The predetermined part of the body body 1 should be equipped in the shape of laying under the ground through the washer section 8 for include-angle accommodation which equips and becomes so that the ball bearing device whose splash is enabled may be formed in the shape of *****.

[0020]

[Example 3] The case shown in the perspective view of the pocket mold telephone of drawing 6 is pocket mold telephone which has the scanner ability which is included by the pocket mold telephone of this invention, and which shows the example of further others, reads a manuscript and can do it. The pocket mold telephone concerned is crossed to the predetermined right-and-left width of face on the backside [the body body 1 soffit base section]. The scanning CCD line sensor 6 makes the image pick-up side the letter of exposure, and is formed. On the right-hand side of [left] this scanning CCD line sensor 6 The driving wheels 7 and 7 of the couple which rolls towards the front or the back of the body body 1 are arranged in the shape of the same axle. furthermore, in the location close to the scanning CCD line sensor 6 over the right and left by the side of before the body body 1 soffit base section Three white light emitting diodes 3, 3, and 3 are what was laid underground so that the light-emitting part might be made into the letter of exposure. The DC-power-supply unit is connected to said scanning CCD line sensor 6, the white light emitting diodes 3, 3, and 3, and a list at the body body 1 up end face at each of the motor for actuation which driving wheels 7 and 7 do not illustrate through the switching circuit which makes the switching operation carbon button 41 the letter of exposure and which is not illustrated. Once it pushes this switching operation carbon button 41, the current from a DC-power-supply unit will be supplied only to the white light emitting diodes 3, 3, and 3. And by the second press actuation A current is supplied so that each of the motor for actuation of driving wheels 7 and 7 may drive in the scanning CCD line sensor 6, the white light emitting diodes 3, 3, and 3, and a list. By third

press actuation It is what was constituted so that supply of the current to the motor for actuation of driving wheels 7 and 7 might be suspended in the scanning CCD line sensor 6, the white light emitting diodes 3, 3, and 3, and a list.

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EFFECT OF THE INVENTION

[Effect] According to the pocket mold telephone of this invention the above passage, can carry and use it daily as a terminal equipment for a communication link of a pocket mold, and an activity and action in a house or the dark place of a going-out place are faced. Since using as a flashlight is possible and it is always carrying If the waist is bent and illuminated also when it has the description that it can be used also at the time of unexpected accident and disaster, taking out quickly and has been bewildered at the time of the outbreak of a fire If many people are going to blame when the check of the way is attained available also as a guide light -- etc. -- by being able to enable various utilization and having used the light emitting diode for lighting as the light source Brightness sufficient as a flashlight is secured and the distinguished effectiveness that power consumption can be low pressed down to extent which does not spoil communication facility is demonstrated.

[0026] Especially the pocket mold telephone of drawing 1 and drawing 2 which were explained to the example In addition to the above-mentioned description, by having arranged the light emitting diodes 3 and 3 for lighting near [input/output terminal entry 16] the body body 1 Plugs, such as a disk in a dark place, an IC card, or various adapters for a communication link, can be performed simply and certainly. Like the pocket mold telephone of drawing 3 An operation mistake is cancelable while being able to operate it simply and certainly by making the light emitting diodes 3, 3, and 3 for lighting, and the closing motion manual operation button 41 into the arrangement according to a flashlight, and actuation structure.

[0027] The pocket mold telephone which carried out [**] to drawing 4 by having formed the white light emitting diodes 3 and 3 in the location which can illuminate the photographic subject of CCD camera 5 Irradiate sunlight and the light of the abbreviation same color at a photographic subject, adjust an illuminance suitably, and good photography is attained. Usually, the filter and the image-processing function to perform accommodation of a light and darkness and a color tone indispensable to a CCD camera 5 side are made unnecessary. By setting up the power consumption per this white light emitting diode 3 piece before and after 3.6V and 20 mA-h, when a manufacturing cost is reducible 3.6V currently used for the DC-power-supply unit of common pocket mold telephone, Can use the power of the lithium ion battery of 500 mA-h extent as it is, without making a special transformation circuit intervene, and since there is little power consumption required for lighting Even if it is the case where did not cause trouble to communication facility and continuous duty only of the lighting function is carried out, it is possible to make the light switch on continuously for about 25 hours. Furthermore, it becomes possible to change freely the structure which attached the white light emitting diode 3 through the washer section 8 for include-angle accommodation as shown in drawing 5, then the include angle of lighting according to liking or a situation, and the excellent description that photography from which expression and an expression differ can be performed is acquired.

[0028] Furthermore, by having equipped the pocket mold telephone shown in drawing 6 with the scanner function which consists of a scanning CCD line sensor 6 again, and having considered as the structure of using the white light emitting diodes 3, 3, and 3, as lighting in the case of the manuscript reading as what carried the scanner of a pocket mold in one in the top in which the utilization as a

flashlight is possible, it can be markedly alike, convenience can be raised, and it can provide for a commercial scene as a high product of added value.

[0029] Since **** achievement of the desired end of the pocket mold telephone of this invention is enabled by that new configuration like description and it considered as the structure of moreover using the power of the existing DC-power-supply unit for lighting as it is When manufacture can also be made far economical as compared with the structure of it being easy and carrying the dc-battery only for lighting, Manday and a manufacturing cost can be held down low, and can be offered comparatively cheaply, it is esteemed in the pocket mold telephone manufacturer asked for a small light weight and multifunctional coexistence, and the communication link industry relevant to this, and it is expected that it becomes what crosses extensively, and uses and spreads.

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OPERATION

[Function] The pocket mold telephone of this invention which consists of a configuration as above While being able to talk over the telephone and use as pocket mold telephone, as shown in drawing 1 and drawing 2 If press actuation of the switching operation carbon button 41 is carried out, the light emitting diodes 3 and 3 for lighting arranged on the body body 1 soffit base section will emit light. When the utilization as a flashlight is attained, if the switching operation carbon button 41 is operated and the light emitting diodes 3 and 3 for lighting are made to emit light in a dark place also in case it is going to fit over the input/output terminal entry 16 the terminal for I/O which is not illustrated, the input/output terminal entry 16 neighborhood will be illuminated. Moreover, like the pocket mold telephone of drawing 3, the upper bed side of the body body 1 is made to arrange two or more light emitting diodes 3, 3, and 3 for lighting, and it becomes possible to perform actuation of burning and putting out lights by the structure which arranged the closing motion manual operation button 41 on the side-attachment-wall side of this body body 1, then the same operability as a common flashlight.

[0022] The pocket mold telephone which has CCD camera 5 shown in drawing 4 If photography actuation of CCD camera 5 is carried out, the photosensor which was prepared in the bottom corner of a display 12 and which is not illustrated will detect the illuminance near the photographic subject. For good photography of CCD camera 5 When the detection value judged that lighting is required is acquired, power is supplied to the white light emitting diodes 3 and 3 arranged near the left right-hand side of CCD camera 5, and the illumination light will be turned to a photographic subject and will be irradiated automatically. Moreover, if the illuminance which this photosensor detected is sufficient value for photography, power to the white light emitting diodes 3 and 3 will not be supplied, but a photograph will be taken by starting only CCD camera 5 in the condition [that the light is put out].

[0023] Moreover, if the body body 1 is equipped with the white light emitting diodes 3 and 3 through the washer section 8 for include-angle accommodation as shown in drawing 5 It is possible to operate globular form **** 82 manually directly, and to carry out include-angle accommodation to the washer section 81 for wearing which fixed in one on this body body 1. The optical axis shown with an alternate long and short dash line all over drawing of white light emitting diode 3 light-emitting part 31 formed so that the core of globular form **** 82 concerned might be penetrated is operated in the shape of a splash like an arrow head, and it becomes possible to adjust the direction of radiation of light free.

[0024] Once the pocket mold telephone shown in drawing 6 carries out press actuation of the closing motion manual operation button 41, a current is supplied only to the light emitting diodes 3, 3, and 3 for white, and it emits light by predetermined brightness, and will be in a condition usable as a flashlight. By the second press actuation To each of the light emitting diodes 3, 3, and 3 for white, the scanning CCD line sensor 6, and the motor for actuation of driving wheels 7 and 7 While the current from a DC-power-supply unit is supplied, the light emitting diodes 3, 3, and 3 for white emit light and the scanning CCD line sensor 6 starts reading actuation, revolution actuation is carried out at the rate which driving wheels 7 and 7 read and synchronizes with a rate. if this scanning CCD line sensor 6 is arranged on the target manuscript and driving wheels 7 and 7 are made to contact a manuscript side using the self-weight of the body body 1 -- the body body 1 -- altogether -- reading actuation will be performed, running a

manuscript top by himself at the optimal rate for reading. If third switching operation carbon button 41 actuation is performed after completing reading, the current supply source to the light emitting diodes 3, 3, and 3 for white, the scanning CCD line sensor 6, and the motor for actuation of driving wheels 7 and 7 will be suspended.

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

A drawing shows the typical example which embodied the technical thought of the pocket mold telephone of this invention.

[Drawing 1] It is the perspective view showing the appearance structure of pocket mold telephone.

[Drawing 2] It is the circuit diagram showing the circuit structure for the lighting of pocket mold telephone.

[Drawing 3] It is the perspective view showing the pocket mold telephone of a flashlight mold.

[Drawing 4] It is the perspective view showing the pocket mold telephone which formed the CCD camera in one.

[Drawing 5] It is the perspective view showing the attachment structure of the light emitting diode in which include-angle accommodation is possible.

[Drawing 6] It is the perspective view showing the pocket mold telephone which formed the scanner in one.

[Description of Notations]

1 Body Body

11 ** Ear Piece

12 ** Display

13 ** Dial Carbon Button

14 ** Speaker

15 ** Antenna

16 ** Input/output Terminal Entry

2 DC-Power-Supply Unit

3 Light Emitting Diode for Lighting (White Light Emitting Diode)

31 ** Light-emitting Part

4 Switching Circuit

41 ** Switching Operation Carbon Button

5 CCD Camera

6 Scanning CCD Line Sensor

7 Driving Wheel

8 Washer Section for Include-Angle Accommodation

81 ** Washer Section for Wearing

82 ** Globular Form ****

[Translation done.]

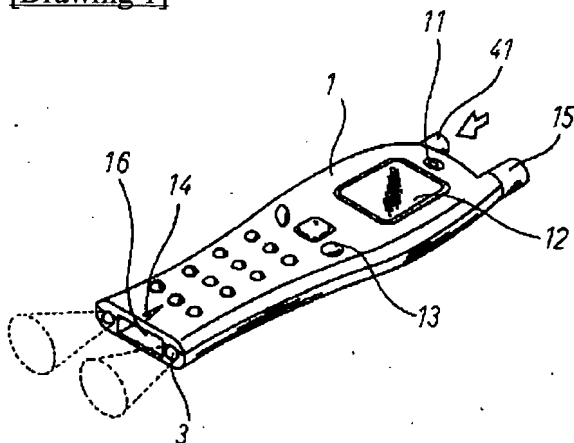
* NOTICES *

JPO and INPIT are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

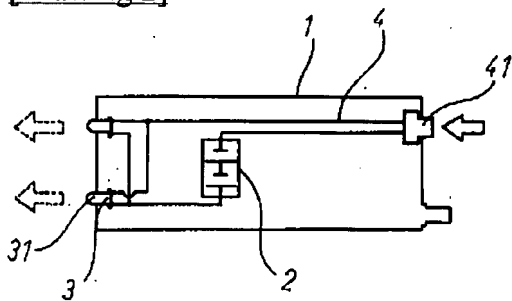
DRAWINGS

[Drawing 1]

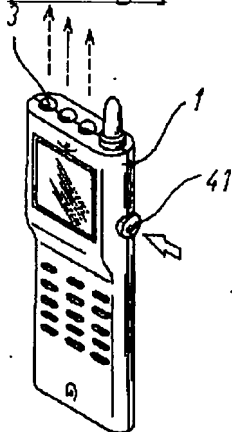


- 1: main body (synthetic resin)
 13: Carbon button
 14: speaker
 11: microphone
 12: display
 3: LED
 31: light emitting parts
 4: switching circuit
 41: Carbon button

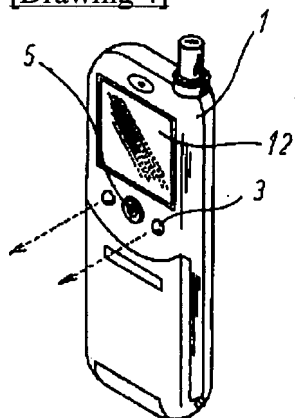
[Drawing 2]



[Drawing 3]

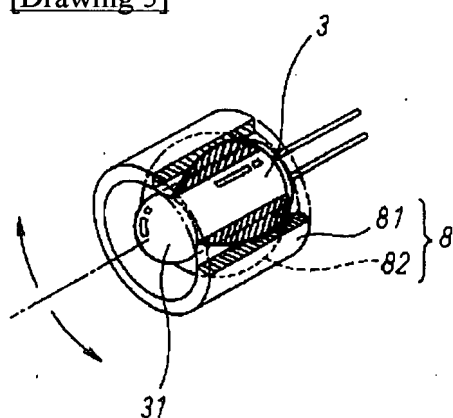


[Drawing 4]



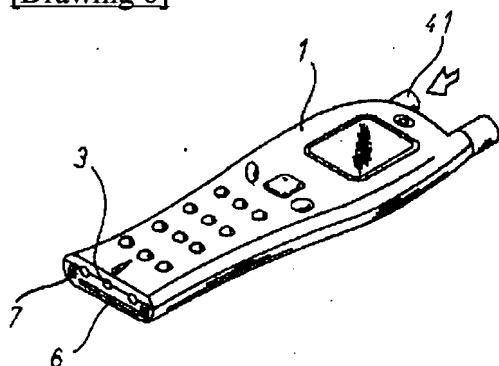
5: Camera
3: LEDs

[Drawing 5]



81: Washer
82: Plate

[Drawing 6]



6: Scanning CCD line sensor

[Translation done.]